

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

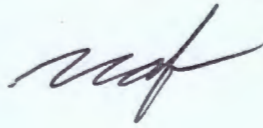
DATE: OCT 31 2013

SUBJECT: INSPECTION REPORT – Gulfport Energy, Boy Scout Well Pad, Harrison County, Ohio, API: 34067210970000

FROM: Michelle Heger, Environmental Scientist
AECAS (IL/IN)



THRU: Nathan Frank, Chief
AECAS (IL/IN)



TO: File

Date of Inspection: July 31, 2013

Attendees: Michelle Heger, Environmental Scientist, U.S. EPA
Constantinos Loukeris, Environmental Engineer, U.S. EPA
Luke Michael, TK Well Contractors

Purpose of Inspection:

Oil and gas extraction is a priority sector for EPA, including natural gas production and well sites. The purpose of conducting an inspection of the Gulfport Energy Boy Scout Well Pad was to assess compliance with air pollution control regulations under the Clean Air Act, with federally approved portions of the Ohio State Implementation Plan, and with their Ohio EPA General Permit to Install and Operate (Permit No. P0113532 issued April 17, 2013).

Company Description and Background:

Well site location: 79900 Adams Rd., Tippecanoe, OH 44699
Main contact office location: 156 Woodrow Ave., St. Clairsville, OH 43950
Primary Contact: Jud Shreves, Production Manager, Gulfport Energy
The Gulfport Energy Boy Scout Well Pad is a natural gas and natural gas liquid (condensate) well site producing in Harrison County, Ohio. It is owned and operated by Gulfport Energy.

Potentially Applicable Regulations:

The Gulfport Boy Scout well site is permitted for the following units and associated regulations:

1. Up to two glycol dehydration units and gas-condensate-glycol separator which may be vented to a BTEX elimination system with condenser and/or a dehydrator system

- flare – OH SIP requirements and 40 CFR Part 63, Subpart HH for glycol dehydrators
2. Multiple stationary natural gas-fired spark ignition internal combustion engines – 40 CFR Part 60, Subpart JJJJ
 3. Compression ignition engines – 40 CFR Part 60, Subpart IIII
 4. Flare/combustor
 5. Flash vessel/storage tanks and truck loading for water and/or petroleum liquids – combined capacity of no more than 252,000 gallons (6000 barrels), where each flash vessel/storage tank has an individual capacity of no more than 39,894 gallon (950 barrel), exempt from control requirements at 40 CFR Part 60 Subpart Kb.
 6. Ancillary equipment including: equipment/pipeline leaks from valves, flanges, pressure relief devices, open end valves or lines, and pump and compressor seals in VOC or wet gas service. – Emissions of VOC shall not exceed 10.6 tons/rolling 12-month period total from fugitive equipment leaks.

The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines. In addition, the permit notes that the permittee shall comply with any applicable requirements of 40 CFR Part 60, Subpart OOOO (NSPS OOOO) which was published on August 16, 2012. It became effective on October 16, 2012 and applies to affected facilities that commence construction, modification or reconstruction after August 23, 2011. Affected facilities under NSPS OOOO include centrifugal compressors, reciprocating compressors, pneumatic controllers, storage vessels, and onshore natural gas processing plants. NSPS OOOO additionally states that an affected facility has a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery.

Inspection:

Opening Meeting and Discussion

U.S. EPA representatives (we) arrived at the site at 9:25 am EST. We observed visible emissions from the flare upon arrival which continued for the duration of the inspection, until we left the site. We recorded a digital video of the visible emissions from outside the property line and took photos of the smoke, pictured in Attachment 1. We introduced ourselves to Mr. Michael, a contractor to Gulfport Energy who was on the site at the time of the inspection. Mr. Michael stated that we should contact the main office in St. Clairsville if we need any additional information.

Process and Facility Tour

The following process description is copied from the facility's permit application which EPA received via email on Tuesday, August 13 from Mr. Shreves:

"The site's well bore conveys formation fluids (produced water, oil and natural gas) to the surface under formation pressure. The production stream is then piped through a sand separator. Sand fines are dropped from the production stream. Then, the production stream passes through a glycol bath heater to maintain temperature as the pressure is dropped. Then the production stream is piped into a high pressure separator unit where the stream is separated into 3 phases – water, liquid hydrocarbons "oil" and natural gas (including natural gas liquids NGL). The separated water is piped from the high pressure

process vessel to a low pressure separator to recover additional hydrocarbons, then it goes to on-site storage tanks where it is routinely off-loaded and transported via truck to permitted disposal facilities. The oil is routed to a low pressure separator to recover additional light hydrocarbons, then sent to on-site storage tanks "sales tanks" and routinely off-loaded and transported for sale via truck. The gas off of the low pressure separators is compressed and sent to the gas stream. The gas stream is sent through a third party meter before delivery into a gathering system pipeline. Hydrocarbon vapors that are produced from the liquid in the storage/sales tanks are captured by a vapor recovery system and are compressed to send to the gas gathering system pipeline. Liquids are recycled back to the low pressure separator to be sent back to the sales tank. In the event the vapor recovery system is down, the flare is used to control the emissions. Excess vapors from the tanks' vapor space are vented to atmosphere only as a process safety measure (i.e. over pressurization). Emissions produced by truck loading are controlled through the flare."

We observed four well heads and what appeared to be four process trains at the site. The site has four produced water tanks and 10 tanks identified as condensate tanks. We observed the contractors emptying produced water tanks into a truck labeled as "brine."



Photo 1: IMG_0694, produced water truck loading

Mr. Michael stated that the site produces approximately 1,500 barrels of condensate per day, 1,100 barrels of brine/produced water, and about 5 mmscfd of natural gas.

From the ground near the tanks, we observed visible refractory from the common tank header. At the base of the tanks, the PID instrument alarmed with a reading of 84 ppm and I observed a strong natural gas odor. K. Loukeris recorded a video of the hydrocarbon plume emanating from the tank header with the FLIR camera (MOV_0360). Photos 2 and 3 below are still photos of the video.



Photos 2 and 3 – IMG_0695 and IMG_0696, storage tanks, correspond to MOV_0360

K. Loukeris continued to survey the site with the FLIR camera and observed active gas emanating from a vent hose resting on the ground outside of the tank area. The contractor stated that it should be closed and tightened the end with a wrench. K. Loukeris recorded one FLIR video of the plume (MOV_0361). Photo 4 below is a still photo of this video.



Photo 4 – IMG_0697, vent hose, corresponds to MOV_0361

I recorded two FLIR videos outside the property line of the tanks and flare before exiting the site. Additional photos of the site are included in Attachment 1. All photos and videos taken during the inspection are saved in the electronic case file and are logged in Attachment 2.

Closing meeting

EPA representatives left the Boy Scout well site at approximately 10:15 am EST. Upon returning to the EPA Region 5 office in Chicago, Illinois on August 1, 2013, I spoke with Mr. Shreves via phone at Gulfport Energy. I provided an overview of our observations from the inspection, including the flare and hydrocarbon plume videos recorded with the FLIR camera. All photos and IR videos taken during the tour will be sent to Mr. Shreves via mail. Gulfport did not claim any information or photos taken during the inspection as confidential business information.

ATTACHMENTS:

1. Additional Photos
2. Photo and IR Video Log

Additional Photos







EPA Inspection Photo and Video Log

Facility: Gulfport Energy, Boy Scout 5-33-H Well Pad, Harrison County, Ohio
API: 34067210970000

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The following table summarizes the photos and videos taken during this inspection and included on this CD as originals for Gulfport Energy:

Photos	File Name	
1 - 12	IMG_0686 - 0699	
Video	FLIR Video	Corresponding Image
1	MOV_0360	IMG_0695 and IMG_0696
2	MOV_0361	IMG_0697
3	MOV_0362	IMG_0698 and IMG_0699
4	MOV_0363	IMG_0698 and IMG_0699
	DIGITAL VIDEO	
5	MVI_0688	IMG_0686 and IMG_0687